

Salvinia cyathiformis Maxon, sp. nov

Plants small, 1 to 1.5 cm. long, 1 cm. broad, or less; stem filiform (about 0.3 mm. thick), bearing a few deciduous short few-celled hairs. Submerged radiciform leaves imperfect, conceptacles wanting. Floating leaves few, 2 or 3 pairs (the nodes 3 or 4 mm. apart), petiolulate (about 0.5 mm.), olivaceous above, darker beneath, 5 to 6 mm. long, subflabelliform, cyathiform, truncate-subcordate at base, broadly rounded in the apical portion, not emarginate, conduplicate in drying, the folded blade 4 to 5 mm. broad, appearing cuneiform, with an acutish or narrowly roundish-cuneate base; midvein slight, subflexuous, hardly thicker than the lateral veins; main lateral veins 6 or 7 pairs, connected in oblong areoles oblique from the midvein, each areole subtending two narrowly oblong or linear areoles toward the margins, the excurrent veinlets mostly free, occasionally producing a minute areole; papillae numerous on the upper side in a wide marginal zone 1.5 to 2 mm. broad, linear, about 1 mm. long, borne mostly upon the ultimate cross-veins and between the excurrent veinlets, greenish-hyaline, cleft at the tip.

Type in the U. S. National Herbarium, no. 1,058,520, collected from a pond at Cedros, Trinidad, December 20, 1914, by W. E. Broadway; received from the New York Botanical Garden.

In habit and in form and venation of the floating leaves *S. cyathiformis* resembles *S. sprucei* Kuhn, of Brazil, founded on *Spruce* 1636. That species as described and figured in the *Flora Brasiliensis*, and as known to the writer from a portion of the type collection courteously lent from Kew, has the leaves much less deeply cup-shaped, broadly cuneate, and devoid of papillae upon the upper surface, except for a few at the extreme margin that are so minute as to have escaped Kuhn's attention. The leaf substance of *S. sprucei* is much thinner than that of *S. cyathiformis*, and the venation is in consequence much more sharply defined.

PROCEEDINGS OF THE ACADEMY AND AFFILIATED
SOCIETIES

WASHINGTON ACADEMY OF SCIENCES

162ND MEETING

The 162nd meeting of the Academy, the 24th annual meeting, was held at the Administration Building of the Carnegie Institution of Washington, on Tuesday, January 10, 1922. The meeting was called to order by Vice-President HUMPHREYS. Dr. ALFRED H. BROOKS, retiring President of the Academy, delivered an address, entitled, *The scientist in the Federal service*. This has since been published in the *JOURNAL* of the Academy (12: 73-115. Feb. 19, 1922).

Following the address the annual business meeting was held. The minutes of the 21st annual meeting were read and approved. The Corresponding Secretary, ROBERT B. SOSMAN, reported briefly on the activities of the Academy during the year. On January 1, 1922, the membership consisted of 6 honorary members, 3 patrons, and 534 members, the total being 543, of whom 325 reside in or near the District of Columbia. Nine resignations were accepted during the year, and the Academy lost by death the following

members: EDWARD CHESTER BARNARD, FREDERIC PERKINS DEWEY, LOUIS ALBERT FISCHER, FRANZ A. R. JUNG, EDWARD BENNETT ROSA, SAMUEL STOCKTON VOORHEES. Other matters dealt with included the movement initiated by the Botanical Society of sending scientific literature to the scientists of Russia, the wider distribution of the JOURNAL to Continental European countries, and the compilation by the committee of the Academy of a list of 100 popular books in science. The list, prepared at the suggestion of Dr. GEORGE F. BOWERMAN, Librarian of the Public Library of the District of Columbia, has been widely circulated and commented upon. The activities of the Academy in advocating the establishment of a national arboretum and botanical garden on Mount Hamilton were also discussed.

The Recording Secretary, WILLIAM R. MAXON, reported also on the nine public meetings held during 1921, in addition to the annual meeting, at which illustrated lectures were delivered. Several of these were held jointly with one or more of the societies affiliated with the Academy. The titles and dates, and the place of publication of the lectures, were stated.

The report of the Treasurer, R. L. FARIS, showed total receipts of \$6,382.79 and total disbursements of \$6,196.89; the cash balance on hand December 31, 1921, was \$1,978.52. Investments of the Academy have a total par value of \$15,036.37. The cost of printing the JOURNAL in 1921 was \$3,701.23, as against \$2,550.00 for 1919 and \$2,873.74 for 1920.

The report of the Auditing Committee, consisting of W. R. GREGG, S. H. AYRES, and E. G. FISCHER, was read and the reports of the Treasurer and the Auditing Committee were accepted.

The report of the Editors of the JOURNAL was read by ROBERT B. SOSMAN, the senior Editor. Various economies, including change in make-up and in size of page, had made possible the publication of 537 pages in Volume 11, equivalent to about 620 pages of former volumes. Original articles, 53 in number, took up 61 per cent of the pagination, Proceedings of the Academy and the Affiliated Societies 18 per cent, Abstracts 11 per cent, and News, Notes and Index the remaining 10 per cent.

The Committee of Tellers, consisting of H. W. BEARCE, ROBERT H. LOMBARD, and ROBERT B. SOSMAN, reported that the following officers had been elected for 1922: *President*, W. J. HUMPHREYS; *Corresponding Secretary*, F. B. SILSBEE; *Recording Secretary*, WILLIAM R. MAXON; *Treasurer*, R. L. FARIS; *Non-resident Vice-Presidents*, G. E. HALE, D. C. MILLER; *Managers Class of 1925*, L. J. BRIGGS, ROBERT B. SOSMAN.

The following vice-presidents, nominated by the affiliated societies, were then elected: *Archaeological Society*, AUSTIN H. CLARK; *Biological Society*, VERNON BAILEY; *Botanical Society*, CHARLES E. CHAMBLISS; *Chemical Society*, R. C. WELLS; *Institute of Electrical Engineers*, R. P. PARROTT; *Society of Engineers*, J. S. CONWAY; *Entomological Society*, S. A. ROHWER; *Society of Foresters*, RAPHAEL ZON; *National Geographic Society*, FREDERICK V. COVILLE; *Geological Society*, G. W. STOSE; *Historical Society*, ALLEN C. CLARK; *Medical Society*, A. W. BOSWELL; *Philosophical Society*, E. C. CRITTENDEN.

163D MEETING

The 163d meeting was held jointly with the Philosophical Society of Washington in the Assembly Hall of the Cosmos Club, the evening of Saturday, January 28, 1922. Dr. L. T. TROLAND, Professor of Psychology at Harvard University, delivered an address on *Psycho-physics as the key to metaphysics*.